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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,077	10/01/2003	Martin S. Scolaro	459900	8342

27717 7590 01/23/2007
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EXAMINER	
TRAN, CHUC	
ART UNIT	PAPER NUMBER
2821	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/677,077	SCOLARO ET AL.	
	Examiner	Art Unit	
	Chuc D. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 18-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-8,11-12,18-23,25* is/are rejected.

7)☒ Claim(s) *4,5,9,10 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "temperature-sensing circuit" in claims 1-3, 8-9, 11; the "temperature-responsive means" in claims 18-19; the "sensing lamp circuit temperature" in claims 22-23 and 25; the "impedance altering circuitry" in claims 2-4; and the "RC circuit" in claim 3 must be shown or the feature(s) canceled from the claim(s) 1-4, 8-9, 11, 18-19, 22-23 and 25. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 24 is objected to because of the following informalities:

Claim 24, line 1, the "altering includes" would be changed to - - altering resistance includes - -.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-8, 11-2, 18-23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Henry (USP. 6,198,234).

Regarding claim 1, Henry disclose a drive circuit for a lamp in Fig. 1 and 4, comprising:

an electronic switch (804) connected in series with a lamp (5) and a source of DC voltage (Vdd) and having a control input terminal (DUTYCTRL) (Fig. 4), and a pulse-width-modulation (PWM) control circuit (802) having an input (BRITE) connectable to the source of DC voltage (Fig. 4) and an output (OA,B) connected to the control input terminal of the electronic switch (804, 806) for varying lamp brightness in proportion to the PWM duty cycle (Col. 9, Line 1-12), the control circuit including a temperature-sensing circuit for reducing the PWM duty cycle when lamp temperature exceeds a predetermined temperature (Col. 3, Line 54-65) (Abstract).

Regarding claim 2, Henry disclose that the control circuit includes a timing circuit (Col. 6, Line 36) and the temperature-sensing circuit includes impedance altering circuitry (822) (Col. 8, Line 7-11).

Regarding claim 3, Henry disclose that the timing circuit includes an RC circuit and the impedance altered by the temperature-sensing circuit is in a capacitance discharge circuit (Col. 11, Line 25-30).

Regarding claim 6, Henry disclose that adjustment circuitry (20) for automatically adjusting a control voltage of the control circuit in response to a change in the voltage of the source (Col. 3, Line 53-65).

Regarding claim 7, Henry disclose that the adjustment circuitry includes a supply voltage-dependent voltage regulator for maintaining a constant operating voltage for the control circuit irrespective of the voltage of the source (Col. 7, Line 5).

Regarding claim 8, Henry disclose a portable spotlight in Fig. 1 and 4, comprising:

a lamp (5); and a drive circuit (40) connected to the lamp, the drive circuit including an electronic switch (804) connected in series with the lamp and a source of DC voltage and having a control input terminal (Fig. 4), and a pulse-width-modulation (PWM) control circuit (802) having an input connectable to the source of DC voltage and an output connected to the control input terminal of the electronic switch for varying lamp brightness in proportion to the PWM duty cycle (Col. 9, Line 1-12), the control circuit including a temperature-sensing circuit for reducing the PWM duty cycle when lamp temperature exceeds a predetermined temperature (Col. 3, Line 54-65) (Abstract).

Regarding claim 11, Henry disclose that the temperature-sensing circuit includes a thermal switch (Col. 3, Line 62).

Regarding claim 12, Henry disclose that the control circuit (800) includes an integrated circuit timer (20) configured as an astable multivibrator (Col. 3, Line 37-50).

Regarding claim 18, Henry disclose a drive circuit for a lamp in Fig. 1 and 4, comprising:

electronic switch means (804) connected to a lamp (5) for controlling current flow through the lamp from a DC source and having a control input terminal (Fig. 4), and

control means (802) connected to the control input terminal of the switch means for pulse width-modulation (PWM) of the switch means for varying lamp brightness in proportion to PWM duty cycle (Col. 9, Line 1-12), the control means including temperature-responsive means for reducing the PWM duty cycle when lamp temperature exceeds a predetermined temperature (Col. 3, Line 54-65) (Abstract).

Regarding claim 19, Henry disclose that the temperature-responsive means includes thermal switch means (Col. 3, Line 62).

Regarding claim 20, Henry disclose that the control means includes selectively operable brightness selection means (Abstract).

Regarding claim 21, Henry disclose that adjustment means coupled to the control means for automatically adjusting the control voltage in response to changes in the voltage of the DC source (Col. 3, Line 53-65).

Regarding claim 22, Henry disclose a method of protecting a lamp circuit from overheating comprising:

pulse-width-modulating a supply voltage for controlling lamp brightness (Col. 9, Line 4-8), sensing lamp circuit temperature (Col. 8, Line 27), and reducing the duty cycle of pulse width modulation in response to a sensed temperature exceeding a predetermined temperature (Abstract), the pulse-width-modulating including connecting an electronic switch in series with the lamp and pulse-width-modulating a signal at a control terminal of the switch (Col. 9, Line 1-12).

Regarding claim 23, Henry disclose a method of protecting a lamp circuit from overheating comprising:

pulse-width-modulating a supply voltage for controlling lamp brightness (Col. 9, Line 4-8), sensing lamp circuit temperature (Col. 8, Line 27), and reducing the duty cycle of pulse width modulation in response to a sensed temperature exceeding a predetermined temperature by altering a resistance in a timing circuit (Col. 3, Line 62) (Abstract).

Regarding claim 25, Henry disclose method of protecting a lamp circuit from overheating comprising:

pulse-width-modulating a supply voltage for controlling lamp brightness (Col. 9, Line 1-12), automatically adjusting the duty cycle of pulse width modulation in response to changes in the supply voltage (Col. 3, Line 64) (Col. 8, Line 36-42), sensing lamp circuit temperature (Col. 8, Line 27)), and reducing the duty cycle of pulse width modulation in response to a sensed temperature exceeding a predetermined temperature (Abstract).

Allowable Subject Matter

6. Claims 4-5, 9-10 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or suggest in combination with the remaining limitations the impedance altering circuitry includes two resistances connected in parallel and a thermal switch in series with one of the resistances, and the control circuit includes a selectively operable brightness control switch connected in series with the thermal switch in claims 4-5 and 9-10.

Prior art fails to disclose or suggest in combination with the remaining limitations the method of altering the resistance includes disconnecting one of two parallel-connected resistors in claim 24.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D. Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC
December 28, 2006

THO PHAN
PRIMARY EXAMINER